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Relationship between Entrepreneur's Personality, Behaviour and Venture Success in Pakistan

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Abstract

Pakistan has responded with innovative policies and entrepreneurial support frameworks in the face of increased political instability and institutional fragility. The ability to effectively support innovative new ventures would be constrained if there is little scholarly knowledge about who those entrepreneurs are on an individual level. This study aims to shed light on the relationship between entrepreneur personality traits, behaviours, and subsequent success. This study thereby extends the entrepreneurship literature applying the Five-Factor Model of Personality to a new context while enriching knowledge on the personality behaviour relationship in entrepreneurship. The finding of the study shows that among all the personality traits conscientiousness is positively correlated with entrepreneurial behaviour, agreeableness, and openness has a positive correlation with managerial behaviour while emotional stability has a positive correlation with both entrepreneurial and managerial behaviour.

Keywords: Entrepreneurs, Personality traits, Conscientiousness, Extraversion, Agreeableness, Emotional Stability, Openness, Entrepreneurial and Managerial Behaviours

1. Introduction

Over the last two decades, entrepreneurship has become a very influential source of research in a variety of social scientific fields, as well as the main focus of the economic strategy. Economic growth is believed to be highly dependent on people's readiness and willingness to start their own business, as well as the founders' talents and efforts to run it successfully (Böheima, Stiglbauerb, & Ebmerc, 2009); (Erken, Donselaar, & Thurik, 2018); (Praag & Versloot, 2007).

Entrepreneurship is considered vital factor in to the creation and maximization of wealth and economic development (Antoncic, Kregar, Singh, & DeNobel, 2013). Economic growth is believed to be highly dependent on people's readiness and willingness to start their own business, as well as the founders' talents and efforts to run it successfully (Böheima, Stiglbauerb, & Ebmerc, 2009); (Erken, Donselaar, & Thurik, 2018); (Praag & Versloot, 2007).

Some interventions are commonly taken worldwide, particularly among developing countries are, developing economic zone decentralization of industry and encouragement to young entrepreneur-minds to set startups. These initiatives require resource mobilization and efficient human resources in operation and management to eliminate risk. At this point, the need of finding the most efficient leader is raised, and to solve the problem of measuring human behavior to find better leader's aspects, the scope of behavioral economics/finance has been created. Because it has a significant impact on investors' behavior regarding their investment decision-making. A better understanding of the decision-making process of an investor can make better investment decisions or forecasting. The field addresses the use of decision-making processes of psychology in recognizing and forecasting the markets. Although the concept has been widely applied in the financial and economic domain from a psychological perspective focusing on the management aspect, very little research is done devoted to entrepreneurial and managerial behavior in the aspect of venture success in Pakistan. The study investigates the interpretation of individuals from information to make conscious investment decisions. In other words, the effect of psychological processes in decision-making among the ventures in Pakistan.

2. Literature Review

2.1 Entrepreneurial Success from a Behavioural Perspective

Entrepreneurial success has been characterized in heterogeneous ways. The simplest way to define it is to look at tangible factors like revenue or a company's growth, personal wealth creation, profitability, sustainability, and turnover (Perren, 1999) (Perren, 2000) (Amit, et al., 2000).

Study shows that the definition of success varies from person to person and therefore different entrepreneurs have heterogeneous goals and definitions of success (Ettl & Welter, 2012). Consequently, evaluating entrepreneurial success based on firm-level outcomes may be inappropriate where it can be too early for such outcomes to have substantiated, particularly in cases of fragile countries, where bookkeeping and firm performance

documentation practices are underrated or underused (Maseko & Manyani, 2011). (Carsrud & Krueger Jr., 1995) claim that entrepreneur behaviour such as opportunity finding and risk-taking is stronger in those countries where the socio-economic environment is not stable. Alternatively, (Ahmad, Ramayah, Wilson, & Kummerow, 2010) find that start up founders who exhibit appropriate behaviour are more likely to reduce the negative effects of environmental fragility and hostility on their company's success. The world of limited resources requires entrepreneurial abilities, such as the ability to perceive opportunities and mobilize resources, as well as the ability to optimize value creation from those scarce resources, according to (Kirzner, 1984). Those abilities are highly associated with entrepreneurial behaviour and managerial behaviour, respectively.

Hypothesis 1. (H1): Founder behaviours differ between highly successful and less successful Pakistani entrepreneurs.

2.2 Openness

Individuals with a high level of openness to experience "an inclination toward innovative or unusual ideas, attitudes, and actions facilitates successful entrepreneurial performance." (Zhao, Seibert, & Lumpkin, 2010) .They enjoy novelty and are open to trying new things, which makes them creative and innovative (Schumpeter, 1965). Researchers predict openness to have a favorable impact on networking behaviours because both characteristics are concerned with information (Wolff, & Kim, 2012). A successful new company's management also necessitates ongoing adaptation to its changing environment, which necessitates adaptive behaviours that are predicted to be impacted by openness. As a result, we anticipate a beneficial relationship between openness and entrepreneurial and management behaviours.

Hypothesis 2. (H2): Openness is positively related to entrepreneurial and managerial behaviours.

2.3 Conscientiousness

Conscientiousness is a Big Five attribute that reflects effective self-control and the ability to plan and manage one's initiatives (Block, O.Fisch, Obschonka, & G.Sandner, 2019). Among the five personality factors, conscientiousness has the strongest association to entrepreneurship, position (in comparison to management status) (Hao & Seibert., 2006) Conscientiousness is widely regarded as the most significant personality trait for job performance and a main work motivation component by many academics (Hurtz & Donovan, 2000) found that conscientiousness appears to be a consistently valid indication for task performance, job dedication, and interpersonal facilitation, as measured by (behavioural) indicators such as the use of equipment, commitment to objectives, and being a team player, respectively. In a nutshell, this trait appears to be required to improve entrepreneurial and managerial behaviours, as well as effective entrepreneurial outcomes. As a result, we anticipate a beneficial relationship between conscientiousness and entrepreneurial and managerial behaviours

Hypothesis 3. (H3): Conscientiousness is positively related to entrepreneurial and managerial behaviours.

2.4 Extraversion

Extraversion represents sociability, talkativeness, compassion, activity, person-orienteers, and optimism. (Markman & Baron., 2003) note the necessity of creating networks with suppliers and customers in an industry as a critical aspect of the start-up process, which we predict to connect with extraversion negotiating with stakeholders, communicating with own employees and team members, and getting advice from others are all examples of networking behaviours. In fragile environments, where reliance on social networks and community support could be instrumental in overcoming environmental challenges and achieving entrepreneurial success (Rashid, Alzafari, & Kratzer, 2019), (Dana , Gurău, Hoy, Ramadani , & Alexander, 2021) and even linked to enhanced resource mobilization and opportunity recognition behaviours and capabilities, the ability to build strong networks and relationships could be more pronounced. Extraversion is the strongest personality predictor of management performance, according to a meta-analytic study by (Judge, Timothy A., Joyce E., Remus, & W., 2002) which could be an indicator of good managerial actions. As a result, we anticipate a beneficial relationship between extraversion and entrepreneurial and management behaviours

Hypothesis 4. (H4): Extraversion is positively related to entrepreneurial and managerial behaviours.

2.5 Agreeableness

Agreeableness is another personality attribute that reflects interpersonal behaviour, specifically the tendency to be pleasant in social situations. People that score well on this feature have higher levels of trust, conformity, and modesty (Block, O.Fisch, Obschonka, & G.Sandner, 2019). An agreeable person is collaborative and cooperative, compassionate, gentle, trustworthy, forgiving, compliant, and empathic, whereas an uncooperative person is suspicious, egotistical, self-centered, skeptical of others' intentions, and manipulative (Costa, & McCrae, 1992), (Hachan, Berraies, & Ftiti, 2018).

Agreeability has also been proven to influence internal networking habits in a corporation (Wolff, & Kim, 2012). In addition, entrepreneurs in highly innovative industries with high Agreeableness scores have a lower failure rate (Wilfling, Cantner, & Silbereisen, 2011). As a result, we anticipate a beneficial relationship between Agreeableness and entrepreneurial and management behaviours.

Hypothesis 5. (H5): Agreeableness is positively related to entrepreneurial and managerial behaviours.

2.6 Emotional Stability

Emotional stability is defined as the ability to have balanced sentiments about ordinary situations and to act rationally and thoughtfully. Emotional stability has also been discovered to be a key predictor of behaviours such as equipment use, teamwork, and work devotion (M. Hurtz & Donovan, 2000). (Barrick, Mount, & Judge, 2001), (Hurtz & Donovan, 2000) find that, with minor, positive associations, emotional stability appears to have the most consistent relationships with job success. Additionally, (Barrick, Mount, & Judge, 2001) conducted

meta-analytical research that concluded that there is a link between emotional stability and job performance. As a result, we anticipate emotional stability to be a strong predictor of entrepreneurial and managerial behaviour.

Hypothesis 6. (H6): Emotional Stability is positively related to entrepreneurial and managerial behaviours.

2.7 Context and Trait

Some recent entrepreneurship-related culture studies define the idea of 'entrepreneurial culture,' which illustrates the route dependency and durability of regional self-employment and start-up rates over lengthy periods of time (Fritsch & Wyrwich, 2012) This indicates that the regional factors such as government policy, resource availability and mobilization, socio-economic norms and belief also has impact on the behavior of founder and people who run the business. Supporting to the finding, (Li, Li, & Shi, 2021) conclude that society, as an informal system, will modify the social psychology, thinking mode, and conduct of economic individuals, as well as provide a favorable atmosphere for the establishment of start-ups, affecting economic activities and development, according to new institutional economics study. (Laura H. & Rashid, 2019) have been observed between countries and regions in Africa, studies Circulation Differences in personality characteristics (McCrae R. , 2002) and workplace behaviours and find the significant relationship between behaviour and performance. The trait-activation theory (Judge & Zapata, 2014) which states that the expression of specific personality traits is dependent on inputs and cues in the surrounding work environment, is one popular explanation.

Favourable working station, social expectations, and organizational climates can differ dramatically between countries with varying levels of institutional stability. For example, certain aspects of a fragile-country entrepreneurial environment, such as poorer access to basic technical services (e.g., internet connection or electricity supply), higher threats of physical violence and asset theft, lack of regulatory transparency and increased corruption, as well as increased social inequality and discrimination, might be expected to trigger different expression pathways of personality characteristics than entrepreneurs in more stable countries. As a result, the personality-behaviour relationship is likely to be influenced by company type. Therefore this study analyze.

Hypothesis 7. (H7): Cities' fragility impacts the relationships between personality dimensions and entrepreneurial and managerial behaviours.

Hypothesis 8. (H8): Company type impacts the relationships between personality dimensions and entrepreneurial and managerial behaviours.

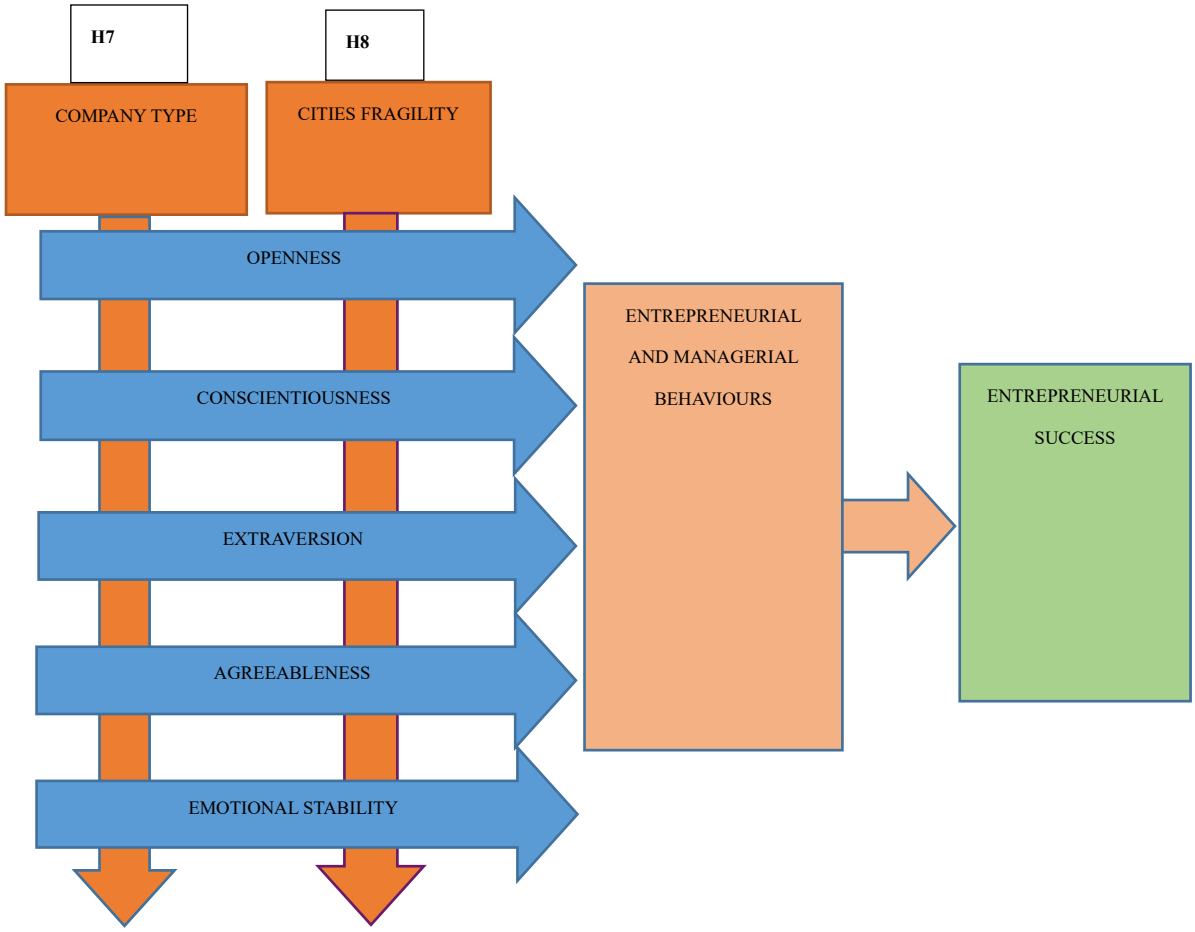

Figure 1. Conceptual Framework

3. Data and Methods

3.1 Dependent Variables

In this study, Entrepreneurial and Managerial behaviour are considered as dependent variable. A questionnaire was designed to test the aforementioned hypotheses. We adopted the behavioural measures of overall performance created and validated by way of (Brown & Hanlon, 2016) Arguably Behavioural Observation Scales (BOS) are demonstrated to account for task complexity, make clear subsequent necessary action and enable for proper coaching and help while usually exhibiting excessive tiers of inter-rater consistency and correlation with non-behavioural overall performance measures (Brown & Hanlon, 2016) Though we felt that this presented a significant contribution to the field, we believed that it was insufficient to ground entrepreneurial education programs as the BOS had not been fully validated. The need for validation motivated the present study.

Brown and Hanlon's BOS has been chosen as it particularly assesses entrepreneurial and managerial behaviours that approximately relate to entrepreneurial and managerial capabilities needed for new venture success in a dispute environment as identified by

(Kirzner, 1984) Entrepreneurial behaviours are defined as those connected to the founder's acquisition of appropriate skills and educational background, opportunity discovery, business dedication, resource mobilization, risk-taking, and negotiation, which comprise 20 questionnaire items.

Managerial behaviours, on the other hand, are made up of 20 questionnaire items that include strategic growth, financial management, employee/team management, and marketing/customer management. Each questionnaire object is evaluated on a 7-point Likert scale. Data is additionally gathered on the annual turnover of the start-up as an estimator for financial performance. Respondents had been additionally requested to subjectively consider their success via answering the question "compared to other organizations in the branch, how successful are you?" on a 7-point Likert scale. The study considers two ways to identify ventures that are highly successful. Those for which the annual turnover equals or exceeds USD 10,000 and these for which the founder subjectively identifies him/herself as slightly or strongly greater profitable as peers.

3.2 Independent Variables

One of the shortest validated instruments to measure personality traits is the Ten-Item Personality Inventory (TIPI). With regards to personality measurement, decades of research and methodological development have led to the creation of the widely used 10-item Personality Inventory Measure (TIPI) as an instrument for FFM quantification (Gosling, Rentfrow, & Jr., 2003). Which is applied in our study. So far, dozens of studies in many disciplines have successfully applied this scale (Li J. & Chignell, 2010).To prevent potentially burdening study participants with a lengthy questionnaire and improve response rates, the TIPI scale was chosen over more extensive, intricate Big Five measures (McCrae & Jr., 2004).Two questions were used to assess each personality dimension; one item represented a positive pole, while the other represented a negative pole. On a 7-point Likert scale, each TIPI questionnaire item is rated.

3.3 Control and Moderating Variables

Items measuring demographic variables as control variables, such as gender and age, as well as assessments of the founder's surrounding environment, are also included in the questionnaire. One of the very first variables is start-up stage, where we define an initial stage venture as one that has been in the process of being set up for the last 12 months or less, and a late-stage venture as one that has been in operation for over a year and is already paying wages, as defined by the Global Entrepreneurship Monitor (GEM, 2019) (Note 1).Questions on whether the founder thinks the company to be a services, social and a manufacturing company helped to identify the type of business. Data on the city of operation and its location within the country is collected as well, with the city's current exposure to negative events across those dimensions, as well as its capacity to deal with related and ensuing risks in the future, being taken into account.

3.4 Data Collection

The questionnaire was randomly distributed in person to the entrepreneurs in five major cities

in Pakistan. The cities are Islamabad, the capital; Karachi, the port city; Faisalabad and Lahore, clothing industry; and Peshawar manufacturing industry. From the distribution of questionnaire to collecting the response took five months duration, from June 2021 to November 2021. We distributed 700 questionnaire and 337 respondents completed the survey and 300 datasets were qualified to run the study. The questionnaire reliability is examined through Cronbach's α measurement to assert that the items measuring entrepreneurial and managerial behaviours do so adequately.

3.5 Validity and Reliability Tests

The questionnaire reliability was examined through Cronbach's αmeasurement to assert that the items measuring entrepreneurial and managerial behaviours do so adequately. A Cronbach's α value of 0.778 was obtained for Entrepreneurial Behaviour. While a Cronbach's α value of Managerial Behaviours are 0.73 The Kaiser-Meyer-Olkin (KMO) test results also indicate sampling adequacy for each dependent variable. Those results are summarized in table 1. There is no anticipation of non-response bias given that all questionnaire items required mandatory responses. As for common method variance (CMV), we follow (Fuller, Simmering, Atinc, Atinc, & Babin, 2016) in presuming that a "relatively high level of CMV must be present to bias true relationships among substantive variables at typically reported reliability levels" and that "at levels of CMV typical of multiple item measures with typical reliabilities reporting typical effect sizes, CMV does not represent a grave threat to the validity of research findings". We also refrained from conducting a confirmatory factor analysis (Harman'sone-factor test) to detect CMV in accordance with Fuller et al. (2016)and (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), who postulate that this test is not sensitive enough to detect CMV and that there is a lack of empirical evidence that proves its efficacy.

Table 1. Summary of analysis results pertaining to questionnaire validation

Dependent Variables	Variables Constituent Elements	Cronbach's α	KMO
Entrepreneurial Behaviours	Relevant Background for Chosen Business Opportunity Identification Dedication to Business Mobilizing Supported Resources from Others Negotiation and Risk-Taking	.778	.774
Managerial Behaviours	Strategic Business Development and Growth Financial Management Skills Employee Management Marketing/ Customer Relations Management	.734	.704

3.6 Hypothesis Testing

The Statistical Package for the Social Sciences is used to analyze the data (SPSS 26). To test

hypothesis 1, an independent sample t-test is used to compare mean scores on entrepreneurial and managerial behaviours between highly successful and less successful ventures after computing descriptive statistics on variable means, standard deviations, frequencies, and Pearson correlation coefficients (Appendix 1 Table 5). The remaining hypotheses are subsequently tested using linear regression modeling. To test for non-linear effects, the independent variables are quadratically transformed and centered. Regression models are established separately for each dependent variable while controlling for gender and age. Contextual variables (such as company type and city fragility) were examined for moderating variable effects (hypotheses 7 and 8).

Linear regression modeling results are summarized in the above tables (Appendix 1 Table 6 and Table 7). All models have significant regression equations with no multicollinearity detected (all VIF values <10).

The result's shows that Conscientiousness and Emotional Stability appears to be the independent variable with the Significant predicted ($p < 0.05$) positive correlation with entrepreneurial behaviors.

With regards to the control and moderating variables, gender appears to have a significant influence on entrepreneurial behaviours, with the male gender positively predicting ($p < 0.05$). Variables pertaining to company type (Manufacturing) appear strongest significant in entrepreneurial behaviours. Cities' fragility also has a significant ($p < 0.05$) positive correlation with entrepreneurial behaviour

As for remaining personality variables Agreeableness strongest significant ($p < 0.01$) positive correlation with managerial behaviours. Openness also appear to significant ($p < 0.05$) predict managerial behaviours.

With regards to the control and moderating variables, gender appears to have a significant influence on managerial behaviours, with male gender positively predicting ($p < 0.05$). Variables pertaining company type (Manufacturing) appear strongest significant in Managerial Behaviours.

4. Findings

4.1 Descriptive Statistics

The 300 respondents come from different industrial areas of Pakistan. Male-identifying entrepreneurs constitute the major proportion of the sample (87.7%) while the least number of entrepreneurs are female (12.3%). Around 66.7% respondents are between 30 and 40 years of age while the least number of founder initiative is taken by the people aged over 40 years old (11.7%). The youngest group of entrepreneurs are taking the proportion of 21.7% of the sample. Most of the companies are more than one year old (79.3%) and only 8% of them are less than one year. About 12.7% of the company are at the initial stage. Majority of the founders operate services based ventures (73.7%) and only 13.7% are manufacturing based (13.7%) and the rest are social based (12 %).

Table 2. Descriptive Statistics regarding the dependent variables

Dependent Variables	Mean	SD
Entrepreneurial Behaviours	6.9657	.09817
Managerial Behaviours	6.9292	.14168

Table 3. Descriptive Statistics regarding the Independent variables

Independent Variables	Mean	SD
Extraversion	5.4800	1.27869
Agreeableness	5.0900	2.51588
Conscientiousness	5.7300	1.03635
Emotional Stability	5.5200	1.65086
Openness	5.5833	1.50241

4.2 Independent Sample T Test

Table 4. Results of independent sample t-tests comparing mean scores between groups of founders based on subjective and economic measures of firm success

Grouping Variables	Test (Dependent) Variable	T-Test for equality of Means				
		t	df	Sig(2-tailed)	Mean Difference	Std Error
Self –Rated as less Successful	Entrepreneurial Behaviour	-3.401	235.638	.001	-.03136	.00922
	Managerial Behaviour	-2.780	273.046	.006	-.03904	.01405
Annual turnover<$10k	Entrepreneurial Behaviour	-3.299	247.939	.001	-.02997	.00908
	Managerial Behaviour	-2.782	292.237	.006	-.03894	.01400

5. Discussion and Implications

The findings, first and foremost, reveal that entrepreneurial and managerial behaviours are strongly correlated to entrepreneur success. This helps to overcome the constraints and challenges of concrete economic measurements such as turnover, size, market share, and profit, which, despite their potential, fail to compare entrepreneurial initiatives across industries, company stages, and country contexts. Entrepreneurial people are frequently dependable, well-organized, trustworthy, and helpful, with a lower level of talkativeness and optimism, as well as an ego-centered orientation. Entrepreneurs who actively engage in entrepreneurial behaviours are, to some extent, champions, while also possessing a number of other characteristics (Gemünden, 1985) (Howell, Shea, & Higgins, 2005). The results with respect to entrepreneurial behaviours show statistically significant and have a positive effect on the independent variables conscientiousness and emotional stability. The findings on

managerial behaviours also show that agreeableness and openness have positive and statistically significant predictive capabilities. The results strongly suggest that demonstrating necessary behaviours and succeeding as an entrepreneur requires a blend of personality traits that cannot be generalized from one city to another. The paper extends the application of the trait activation theory to Pakistan's context and confirms the influence of area fragility [urban, rural] on personality expression and subsequent entrepreneurial behaviour, a unique contribution to entrepreneurship literature combining theoretical rigour with social relevance. From an implication point of view, understanding the relationship between personality dimensions, entrepreneurs' behaviour and subsequent new business success in Pakistan is positioned to nurture entrepreneurs and start-up teams without relying on potentially irrelevant knowledge gathered in western, institutionally stable countries.

Results also help in selecting receivers of financial means from public sources and venture capitalists. Particularly, many believe that the most successful entrepreneurs are ego-centered individualists while the results indicate something else. This also includes foreign investment efforts, where investors needs to realize that the loudest entrepreneurs are not necessarily the most promising. The results might even warrant the need for different coaching and financing strategies for Pakistan and fragile-country migrant or refugee entrepreneurs attempting to start businesses in western and stable countries (Rashid, 2018) recognizing differences in their personal characteristics. Additionally, realizing that male gender is significantly correlated to entrepreneurial and managerial behaviours calls for more specialized efforts to understand and foster female entrepreneurship in the region.

6. Conclusion

The aforementioned findings indicate that there is a significant relationship between an entrepreneur's personality, behaviour, and venture success in Pakistan. However, it is critical to focus on empowering bottom-up developmental approaches that emphasize high-growth business development.

Personality has long been considered to play a significant role in predicting business outcomes and entrepreneurial intent and success, but its relationship to entrepreneur conduct has been largely understudied. Furthermore, despite the fact that manifestations of personality traits in entrepreneurship are likely to vary significantly according on country context, this study finds that among Pakistani entrepreneurs, people who scored better than average in behavioural context of Conscientiousness and emotional stability are performing good in context of Entrepreneurial behaviour. On the other hand, people who scored more than average in the personality traits: Agreeableness, Openness and Emotional Stability are significantly appeared to associate with Managerial behaviour.

Other than the behavioural association, this study also finds insights on entrepreneurial success through the behavioural measure. When entrepreneurial success has been seen via a behavioural lens, the study concludes with an emphasis on individual entrepreneurial and managerial activities, while the FFM has been used to analyze personality traits. Entrepreneurial and managerial behaviours do indeed correlate with new venture success, and that conscientiousness and emotional Stability are the strongest personality predictors of

entrepreneurial behaviours while agreeableness, openness and emotional stability are of managerial behaviour, moderated by area fragility.

The study responds to recent calls to diversify entrepreneurship research (Welter, Baker, B. Audretsch, & B. Gartner, 2017) and conduct research that is both high in theoretical rigor and (Wiklund, Wright, & A. Zahra, 2019) entrepreneurship literature gaps regarding the personality-behaviour relationship and personality research outside of stable, western countries. Findings additionally support education, team building and financing efforts for Pakistani [south-east Asian] entrepreneurs [for example: national and international investment and development projects] and call for specialized and context appropriate economic and development activities such as government interventions and non- government initiatives. The study model and outcome can be replicated to the similar economies where best fit.

Furthermore, employing self-reported questionnaires to collect data can result in some degree of response subjectivity. For instance, "respondents may systematically adjust questionnaire responses in the direction they perceive to be desired by the investigator," according to social desirability bias (C.K.Choi & W. P. Pak, 2005).This might contribute to the high mean scores on both entrepreneurial and management tendencies. However, as anti-bias measurement, all respondents are asked to submit their questionnaires anonymously.

The study has been conducted during the COVID-19 pandemic and due to the circumstances the data collection faces some hindrances such as assigned person could not reach to those respondents who's location is outside of reachable zone from the data collectors. This circumstance results collection of data through email or other electronic media such as different messaging tools. This may occur respondent's biasness in the process of collecting data.

Additional variables related to institutional conditions and support systems at the urban and rural area level can be included in future studies. This could be done using hierarchical modeling across several areas or cities or in comparison to extremely stable countries. Future research could look into additional possible moderating and mediating variables in order to improve the results and practical recommendations. Personality characteristics of founders could be supplemented by and compared with other independent variables such as social networks, a cultural capital or family background. Overall, research connecting personal characteristics, entrepreneurial activities, and success should pay more attention to changing global dynamics and major sustainability and social challenges, determinants of entrepreneurship beyond pure profit orientations, modifications in and extensions of institutional support mechanisms, and changing labour markets as a result of digitization's effects.

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Note

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Appendix A

Appendix I. Table 5. Pearson correlations between the dependent and independent variables

		Entrepreneurial Behaviour	Managerial Behaviour	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness
Entrepreneurial Behaviour	Pearson Correlation	1	.829**	.265**	.214**	.369**	.419**	.389**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	300	300	300	300	300	300	300
Managerial Behaviour	Pearson Correlation	.829**	1	.348**	.504**	.395**	.424**	.482**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	300	300	300	300	300	300	300
Extraversion	Pearson Correlation	.265**	.348**	1	.079	.232**	.174**	.158**
	Sig. (2-tailed)	.000	.000		.172	.000	.002	.006
	N	300	300	300	300	300	300	300
Agreeableness	Pearson Correlation	.214**	.504**	.079	1	.159**	.246**	.278**
	Sig. (2-tailed)	.000	.000	.172		.006	.000	.000
	N	300	300	300	300	300	300	300
Conscientiousness	Pearson Correlation	.369**	.395**	.232**	.159**	1	.159**	.381**
	Sig. (2-tailed)	.000	.000	.000	.006		.006	.000
	N	300	300	300	300	300	300	300
Emotional Stability	Pearson Correlation	.419**	.424**	.174**	.246**	.159**	1	.326**
	Sig. (2-tailed)	.000	.000	.002	.000	.006		.000
	N	300	300	300	300	300	300	300
Openness	Pearson Correlation	.389**	.482**	.158**	.278**	.381**	.326**	1
	Sig. (2-tailed)	.000	.000	.006	.000	.000	.000	
	N	300	300	300	300	300	300	300

Table 6. Linear regressions Models Predicting Entrepreneurial Behaviours

Variable	Model1	SEB	VIF	Model2	SEB	VIF	Model3	SEB	VIF	Model4	SEB	VIF
Control Variable												
Gender (DV: Male)	.056*	.017	1.002	.048*	.014	1.040	.043*	.014	1.055	**.040***	.014	1.075
Age(DV: Between 20-30)	-.042*	.020	2.241	-.032	.017	2.284	-.042*	.017	2.370	-.043*	.017	2.522
Age(DV: Between 30-40)	-.007	.018	2.328	-.012	.015	2.272	-.020	.015	2.353	-.023	.015	2.403
Independent Variable												
Extraversion				.008*	.004	1.101	.009	.010	7.958	.009	.010	7.984
Agreeableness				.001	.002	1.148	.004	.003	3.370	.003	.009	3.415
Conscientiousness				.020**	.005	1.218	.008	.009	4.015	**.007***	.009	4.078
Emotional Stability				.017**	.003	1.203	.010*	.004	2.118	**.010***	.004	2.291
Openness				.012**	.004	1.333	.009*	.005	2.334	.008	.005	2.351
Independent Variable(Quadratic)												
Quadratic Extraversion							.000	.001	8.049	.000	.000	8.062
Quadratic Agreeableness							-.001	.002	3.125	-.001	.002	3.148
Quadratic Conscientiousness							.002	.001	3.315	.003	.001	3.405
Quadratic Emotional Stability							.002*	.001	2.00	.003*	.001	2.105
Quadratic Openness							.001	.001	1.861	.002	.001	1.870
Moderating Variable												
Start up(Initial Stage)										.011	.014	1.088
Company Type(Service)										.009	.022	1.439
Company Type(Manufacturing)										**.050***	.025	1.639
City Fragility(Rural Area)										**.022***	.010	1.080
R^2	**.062**			**0.352**			**.385**			**.406**		

DV: Dummy Variable

*P< = .05

**P< =.01

Table 7. Linear Regression Models Predicting Managerial Behaviours

Variable	Model1	SEB	VIF	Model2	SEB	VIF	Model3	SEB	VIF	Model4	SEB	VIF
Control Variable												
Gender (DV: Male)	.087**	.024	1.002	.051*	.018	1.040	.047*	.018	1.055	**.039***	.017	1.075
Age(DV: Between 20-30)	-.017	.029	2.241	-.005	.021	2.284	-.017	.021	2.370	-.008	.021	2.522
Age(DV: Between 30-40)	.021	.025	2.328	.012	.018	2.272	.005	.018	2.353	.006	.018	2.403
Independent Variable												
Extraversion				.022**	.005	1.101	.014	.012	7.958	.015	.012	7.984
Agreeableness				.019**	.002	1.148	.020**	.004	3.370	**.020****	.004	3.415
Conscientiousness				.024**	.006	1.218	.018	.011	4.015	.013	.011	4.078
Emotional Stability				.017**	.004	1.203	.006	.005	2.118	.008	.005	2.291
Openness				.021**	.004	1.333	.019*	.006	2.334	**.019***	.006	2.351
Independent Variable(Quadratic)												

Quadratic Extraversion			.001	.002	8.049	.001	.002	8.062
Quadratic Agreeableness			.000	.001	3.125	.000	.001	3.148
Quadratic Conscientiousness			.001	.002	3.315	.002	.002	3.405
Quadratic Emotional Stability			.004**	.001	2.00	**.004****	.001	2.105
Quadratic Openness			.001	.001	1.861	.001	.001	1.870
Moderating Variable								
Start up(Initial Stage)						-.012	.017	1.088
Company Type(Service)						.017	.017	1.439
Company Type(Manufacturing)						**.096***	.031	1.639
City Fragility(Rural Area)						.017	.012	1.080
R^2	**.055**	**0.526**	**.549**			**.568**		

DV: Dummy Variable

*P< = .05

**P< =.01